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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/152,008	09/11/1998	SIG H. BADT JR.	ALCA1100-6	8622

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WASHINGTON, DC 20036

EXAMINER

HARPER, KEVIN C

ART UNIT	PAPER NUMBER
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2664

DATE MAILED: 08/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/152,008

Applicant(s)

BADT, SIG H.

Examiner

Kevin C. Harper

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3-6 and 8-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 8-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 September 1998 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

***Response to Arguments***

1. Applicant's arguments with respect to claims 1, 2-6 and 8-10 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3-5 and 9-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

2. Claim 1 recites the limitation "the origin node" in line 14. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

Claims 1, 5, 11 and 15-16 are rejected under 35 U.S.C. 103(a) as being obvious over Shah et al. (US 5,646,936) in view of Rogers (US 6,061,735) and Liu (US 5,914,798).

The applied references of Rogers and Liu each have a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which

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corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

3. Regarding claims 1, 11 and 15-16, Shah discloses a method of mapping a topology of spare capacity (Figure 5; col. 5, lines 66-67) of a DRA-based network. The method comprises the steps of outputting a message from one node to another concerning a spare link (Figure 8) and storing as a topology map the identities of all nodes and spare links interconnecting the nodes (Figures 2 and 5). However, Shah does not disclose identifying the port numbers. One skilled in the art would recognize that a cross-connect switch typically has port numbers identifying connections to different working paths and spare paths (col. 5, lines 18-22). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to identify the spare capacity by port number in the invention of Shah as a matter of design choice. Further, Shah does not disclose storing the network spare data in one location. Rogers discloses a network restoration system which stores spare link capacity data in a central location. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to store spare link capacity data in a central location in the invention of Shah as evidenced by Rogers in order to provide a centralized location for supervising and/or monitoring network

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restoration events. Still further, Shah in view of Rogers does not disclose providing the generated topology to an origin node. Liu discloses providing a topology map to an origin node (Figure 6B, step 774) in order to provide updated routing to that node. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to provide a generated topology to an origin node in the invention of Shah in view of Rogers.

4. Regarding claim 5, Rogers discloses that the topology information is continuously updated to provide a real time network topology (col. 4, lines 2-19 and 47-57).

Claims 3 and 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Shah et al. (US 5,646,936) in view of Rogers (US 6,061,735) and Liu (US 5,914,798) as applied to claim 1 above, and further in view of Shah (US 5,636,203).

5. Regarding claims 3 and 12, Shah in view of Rogers and Liu does not disclose transmitting from custodial nodes to downstream nodes when a failure occurs. Shah discloses that a node transmits its status as a custodial node to downstream nodes when a failure occurs (col. 2, line 52 through col. 3, line 10) in order for the nodes bracketing the failure to be identified. Therefore, it would have been obvious to one skilled in the art at the time invention was made to transmit a failed link message from each custodial node in the invention of Shah in view of Rogers and Liu.

Claim 4 is rejected under 35 U.S.C. 103(a) as being obvious over Shah et al. (US 5,646,936) in view of Rogers (US 6,061,735) and Liu (US 5,914,798), as applied to claim 1 above, in further view of Allen et al. (US 5,768,256).

The applied reference of Allen has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a

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showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention “by another”; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

6. Regarding claim 4, Shah in view of Rogers and Liu does not disclose a custodial node finding an alternate path around a failure. Allen discloses a custodial node finding an alternate path around a failure using its spare topology data in order to reestablish communication (abstract; Figure 3, item 310 and 312). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have a custodial node find an alternate path around a failure in the invention of Shah in view of Rogers and Liu as a matter of design choice.

Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being obvious over Shah et al. (US 5,646,936) in view of Rogers (US 6,061,735), Liu (US 5,914,798) and Bengston et al. (US 6,337,846).

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Claims 9-10, 13-14 and 17-18 are rejected under 35 U.S.C. 103(a) as being obvious over Shah et al. (US 5,646,936) in view of Rogers (US 6,061,735) and Liu (US 5,914,798), as applied to claim 1, 11 or 15 above, in further view of Bengston et al. (US 6,337,846).

The applied reference of Bengston has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

7. Regarding claims 6, 8-10, 13-14 and 17-18, Shah in view of Rogers and Liu discloses a method of mapping spare capacity in a network, where the topology information is continuously updated to provide a real time network, as noted in Paragraphs 3 and 4 above. However, Shah in view of Rogers and Liu does not disclose the various claimed fields in a failed link message. Bengston discloses a DRA provisioned telecommunications network (abstract, Figure 1) having

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several nodes with working and spare links. A message (Figure 3) is transmitted between adjacent nodes in order to map the topology of the space capacity of the network (col. 5, lines 20-27). The message comprises a first field containing the identification number of the node that sends the message (item 44), a second field that contains the output port number (item 46), a third field that contains custodial node information (item 52), and a fourth field for identifying the message (item 40) while a DRA process is not in progress (col. 5, lines 11-13). The message is broadcast where there is a failed link (col. 5, lines 20-24). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have various message fields in the failed link message in the invention of Shah in view of Rogers and Liu as a matter of design choice.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Richetta et al. (US 5,499,237), Cutler, Jr. et al. (US 5,572,512; cols. 1 and 19), and Brady (US 6,041,049; col. 4) each recites distributing a topology map among network nodes. Riddle (US 4,466,060) and Dravida et al. (US 5,253,248) each discloses distributing an exclusionary tree among network nodes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 703-305-0139. The examiner can normally be reached weekdays, except Wednesday, from 8:00 AM to 6:30 PM EST.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached at 703-305-4366. The fax number for Technology Center (TC) 2600 is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Customer Service Office for TC 2600 at 703-306-0377.

Kevin C. Harper



August 26, 2002

KWANG BIN YAO  
PRIMARY EXAMINER

